Appl. No. 09/944,946
Amdt. sent March 31, 2004
Reply to Office Action of January 2, 2004

PATENT

REMARKS/ARGUMENTS

Claims 1 - 10 are pending.

Claims 8 - 12 were rejected under 35 U.S.C. § 103(a) for being obvious in view of Ido et al., JP 2000-020445 and Luo, U.S. Patent No. 6,169,700.

It is noted with appreciation that claims 1 - 7 are allowed.

Claims 8 - 10 have been amended to further distinguish over the cited art.

The present invention is directed to storage control among a plurality of computers. For example, claim 8 recites a storage control apparatus comprising storage devices and having a plurality of ports connected to a plurality of computers. A controller includes "a priority information table holding one of a priority or a non-priority value for each of the ports, the priority information table further including a predefined time." The "I/O through a port that is associated with a priority value is processed in priority fashion such that the start of I/O processing through ports that are associated with non-priority values are delayed by said predefined time." Claim 9 recites a similar aspect of the invention wherein the computers are associated with priority and non-priority values. Claim 10 recites a similar aspect of the invention wherein the storage devices are associated with priority and non-priority values.

Ido et al. disclose suppressing "useless processing" in a memory control unit by reducing the cancel of a reconnection request. *Abstract.* Ido et al. disclose a memory (505) which contains "reconnection request managing information" that is used to selectively perform a channel reconnect request. It is earnestly submitted that the reconnection request managing information does not constitute <u>a priority or a non-priority value</u> as recited in claims 8 - 10. Ido et al. therefore do not show a <u>priority information table holding one of a priority or a non-priority value.</u> Consequently, Ido et al. do not disclose processing of <u>I/O through a port that is associated with a priority value</u>. *Claim 8.* Similarly, Ido et al. do not disclose processing of <u>I/O from a computer that is associated with a priority value.</u> *Claim 9.* Similarly, Ido et al. do not disclose processing of <u>I/O with a storage device that is associated with a priority value.</u> *Claim 10.*

Luo discloses a dual ported memory that incorporates address collision detection. A wait state is generated when an address collision is detected. In one case, a port is determined

in advance to have priority over the other port where an access attempt at each port occurs at precisely the same time. Where an access collision is not due to a simultaneous access attempt, the port that is accessed later in time is wait-stated. *Abstract.* Luo distinguishes over the present invention in that the wait state is generated in response to a collision detection. By comparison, the present invention applies a priority-based delay "such that the start of I/O processing through ports that are associated with non-priority values are delayed by said predefined time." *Claim 8.* Luo does not show <u>ports that are associated with non-priority values are delayed by said predefined time</u>. Kindly see also claims 9 and 10. Rather, Luo generates a wait state when a collision is detected.

As understood, Ido et al. selectively perform a channel reconnection request, so that one processor performs the operation while the other(s) do not perform the operation. It is earnestly submitted, therefore, that a collision situation does not arise. Consequently, there is no motivation to combine the collision detection and wait state generation technique of Luo in an attempt to obtain the present invention.

Luo teaches wait state insertion in response to detecting a collision. However, the present invention performs delays based on priority. The combined teachings of the Ido et al. reference and the Luo reference, therefore, do not show a priority-based delay.

The Section 103 rejection of the claims is believed to be overcome, for either of the foregoing reasons.

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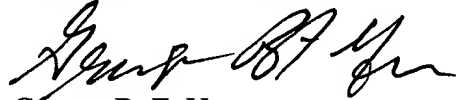Reply to Office Action of January 2, 2004

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CONCLUSION

In view of the foregoing, all claims now pending in this Application are believed to be in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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